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## ABSTRACT OF THE DISCLOSURE

The present invention relates to a bidirectional add/drop multiplexer (BADM) and a bidirectional add/drop amplifier (BADA) module.

5        The present invention includes an N X N arrayed waveguide grating router (AWGR), two optical circulators, two wavelength selective couplers, two optical isolators, and a mid-stage device. The mid-stage device comprises a means for compensating the chromatic dispersion of the optical fibers, a means for flattening the spectral response of the optical amplifiers, a means for  
10       suppressing the accumulation of the ASE noise or a combination of these means.

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